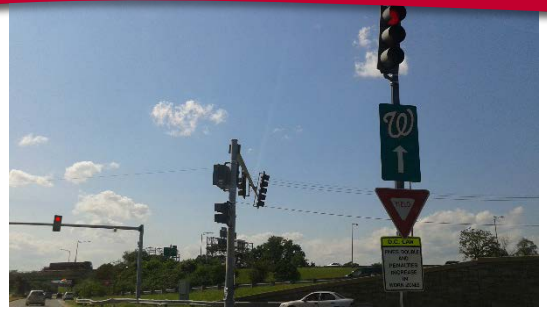
Overview of Integrating MWCOG Demand Model into NEPA Projects

MWCOG Travel Demand Model Subcommittee

May 20, 2016

Louis Berger

Topics

- Modeling background
- Project types
- Stakeholders
- Project examples
- Model benefits
- Project requirements when using model
- Future model improvements to consider
- Q&A

Modeling Background

- MPO in Northern New Jersey (NJTPA)
- Massachusetts Department of Transportation (MassDOT)

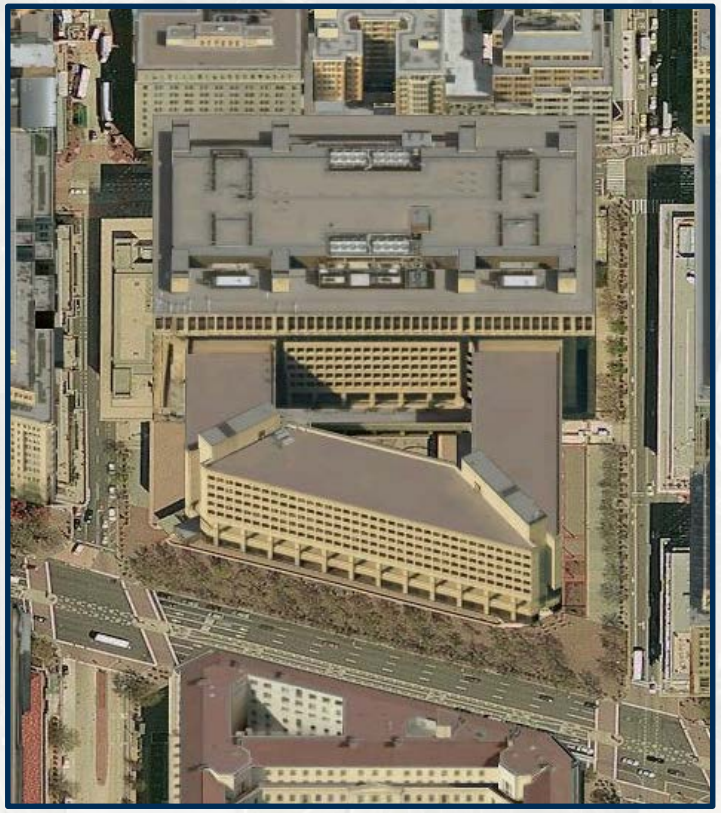
Project Types

- National Environmental Protection Act (NEPA) documentation
- Transportation studies and impact assessment
- Transportation Management Plan

Stakeholders

Project Manager

- NEPA lead agency
- Cooperating agencies
- Environmental Protection Agency
- State Departments of Transportation
- County or regional agency (Maryland-National Capital Park and Planning Commission)
- Impacted jurisdictions
- Politicians from impacted districts
- Community groups from impacts neighborhoods
- Citizens from impacted streets



Project Examples

- Transportation Management Plans
  - Joint Base Anacostia-Bolling
- Transportation Planning Studies
  - Consolidated Federal Bureau of Investigation (FBI) Headquarters
- Environmental Assessments
  - Cotton Annex and General Services Administration (GSA) Regional Office Building
- Environmental Impact Statements
  - Potomac Hill Campus Master Plan
  - Consolidated Federal Bureau of Investigation (FBI) Headquarters

Joint Base Anacostia-Bolling

MWCOG Model Role

- Background growth rate

Cotton Annex and GSA Regional Office Building

MWCOG Model Role

- Trip distribution (residential trips)
- Background growth (NCHRP 255 process)

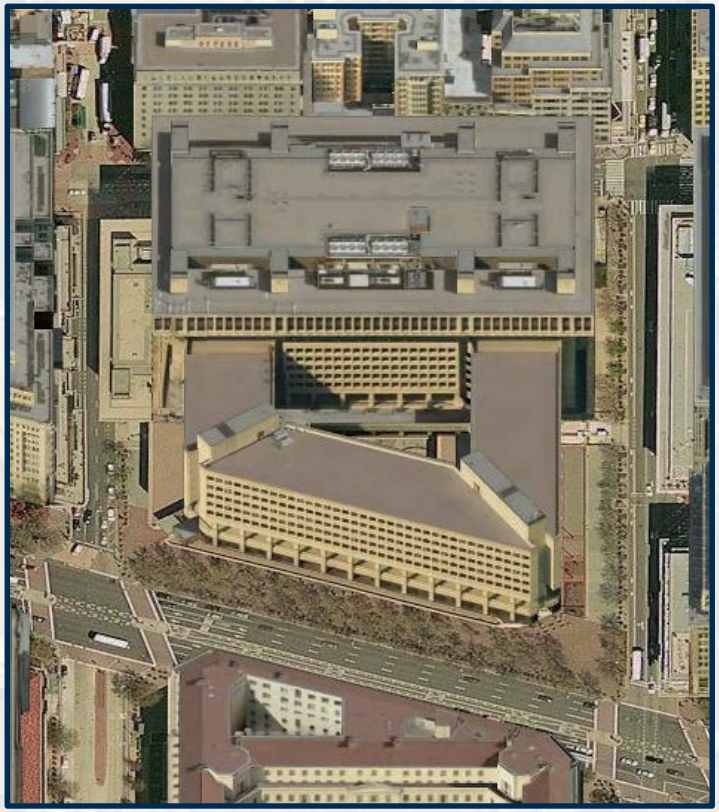
Potomac Hill Campus Master Plan

MWCOG Model Role

- Travel Distances – air quality

FBI Consolidated Headquarters (Planning Study and EIS)

MWCOG Model Role



- Planning Study
  - Background growth (average rate) and NCHRP 255 process
  - Trip distribution (office)
  - Modal Split
- EIS
  - Background Growth
  - Trip distribution: JEH – residential, retail, office
  - Trip distribution: Sites - Office
  - Modal split
  - Travel distances – Air quality

Model Benefits

- Provides a defensible source that is not labeled a national “standard approach”
- Based on locally approved assumptions (demographics, projects, etc.)
- Creates detailed quantitative results

Project Requirements When Using Model

- Education about the model's capability within the report
- Prepare to explain the tool at public meetings
- Knowledge of travel patterns in the region
- Knowledge of how to integrate GIS and model data

Future Model Improvements to Consider

- Improve the network to at least 1:5000 scale
- Create direct connection to GIS-based roadway networks (DC, VA, and MD)
- Create tool to extract trip tables, modal split, and distance data

Q&A

Louis Berger